

Neoplasia 20 lecture 5

Activity

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Test your understanding: read this pathology report and spot the mistake there

- Sections taken from the breast mass show a tumor forming glandular structures lined by atypical cells with a high mitotic rate. The tumor cells are negative for E cadherin stain. The features are those of an invasive lobular carcinoma.

This picture shows APC syndrome which we will discuss in the Teams meeting.



APC adenomatous polyposis coli

- APC syndrome is similar to inherited retinoblastoma, both are inherited in an autosomal dominant fashion, but in both the gene responsible for the syndrome is a recessive, tumor suppressor gene.
- In APC syndrome :one APC allele lost in germ line. Patients with this single loss develop intestinal polyps (adenomatous polyps= adenoma).. Hundreds of adenomas.
- These patients acquire a second mutation in the other APC gene, and this homozygous loss results in colonic adenocarcinoma.
- Patients have 100% risk of malignancy, so prophylactic total colectomy is performed
- 70-80% of sporadic colon cancers have APC mutation
- Colonic cancers with normal APC have mutated beta catenin making them undegradable by APC